

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No.: 10/808,892
Confirm. No.: 7408
Inventor: Jeffrey D. Ollis et al.
Filing Date: March 25, 2004
Title: System and Method for Dynamic Alternative Route Geographic Plotting
Examiner: Mancho, Ronnie M.
Art Unit: 3663
Atty. Docket No.: BCS03496

Mail Stop Appeal
Commissioner for Patents
P.O. Box 1450
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APPEAL BRIEF

In response to the Office Action mailed on November 16, 2007, please enter this Appeal Brief. The Notice of Appeal and corresponding fees of \$500 were filed previously on June 18, 2007. The fee for filing an Appeal Brief of \$500 was also filed previously on June 18, 2007. Since the fees for both have increased since then, \$10 each, Applicant submits herewith the difference of \$20 via a separate fee sheet.

(I) Real Party in Interest

General Instrument Corporation, a wholly owned subsidiary of Motorola, Inc., is the real party in interest.

(II) Related Appeals and Interferences

There are no known related appeals or interferences.

(III) Status of the Claims

Claims 1-5 are pending and rejected under 35 U.S.C. 112, first paragraph, for failing to comply with the written description requirement.

Claims 1-5 are pending and rejected under 35 U.S.C. 112, first paragraph, for failing to comply with the enablement requirement.

Claims 1-5 are pending and rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0163823 to Logan in view of U.S. Patent Application Publication No. 2004/0093154 to Simmonds et al.

Claims 6-21 are cancelled.

(IV) Status of Amendments

There are no amendments to the claims after Final Rejection.

(V) Summary of the Claimed Subject Matter

The invention is a system for dynamic alternative geographic route plotting. The system includes an audio tuner for tuning to frequencies that carry radio broadcast

signals. *See* paragraph [0024]; Figure 1, element 102. The system also includes a selection recognition engine that monitors the tuned radio broadcast signal looking for pre-defined recording triggers. *See* paragraph [0025]; Figure 1, element 106. The selection recognition engine further records, to a memory, portions of a radio broadcast signal. *See* paragraph [0026]. Once recorded, the selection recognition engine processes the recorded radio broadcast signals for anomaly information using voice recognition. *See* paragraph [0028]. That is, the pre-defined audio broadcast signal (“PABs”) is converted into a text string via voice recognition. *See* paragraphs [0011] and [0028]. Once an anomaly text string (“ATS”) is detected, it is forwarded to a global positioning satellite (“GPS”) device. *See* paragraph [0028]. The GPS device then determines an alternative route for the driver based on the received ATS. *Id.*

A use case will also help with understanding this invention. Suppose a driver has instructed his car’s GPS system to map a route from Alexandria, Virginia to Baltimore, Maryland. As the user listens to broadcast radio, the DJ announces, “Let’s check in with traffic and our man in the sky David Smith.” In one implementation, the selection recognition engine will determine that the word “traffic” is important and begin recording portions of the broadcast. That is, the word “traffic” is an illustrative recording trigger.

The traffic man David Smith will then announce his traffic report. Suppose he states, “Heavy traffic on I-495, outer loop, near the Pennsylvania Avenue exchange.” If the original route was to take I-495, outer loop, up to I-95 and Baltimore, the GPS system will then re-evaluate its route and determine that with phrases like “heavy traffic,” “I-495,” “outer loop,” and “Pennsylvania Avenue,” in the recorded radio broadcast, that an

alternative route is needed. The GPS system can then direct the driver to take I-295 North and bypass the heavy traffic on I-495 near Pennsylvania Avenue.

(VI) Grounds of Rejection to be Reviewed on Appeal

Determine if the rejection of claims 1-5 under 35 U.S.C. 112, first paragraph, for failing to comply with the written description requirement is proper.

Determine if the rejection of claims 1-5 under 35 U.S.C. 112, first paragraph, for failing to comply with the enablement requirement is proper.

Determine if the rejection of claims 1-5 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0163823 to Logan in view of U.S. Patent Application Publication No. 2004/0093154 to Simmonds et al. is proper.

(VII) Argument

Rejection for Failing the Written Description Requirement

As best as Applicant can understand this rejection, the Examiner is apparently asserting that “extracting ... information ... using voice recognition” is new matter. Applicant asserts that there is explicit support for this limitation in at least one place in the application as filed and one of ordinary skill in the art would understand this concept to be described given in the application as filed given its total context.

First, the abstract as originally filed states, “The present system and method provide for using a voice selection/recognition engine to extract information relating to anomalous conditions from radio broadcasts in the primary band of broadcast radio.”

(emphasis added). While the sentence structure is different between claim 1 and the abstract, one of ordinary skill in the art would understand that they describe the same thing.

In addition, paragraph [0028] states, “the SRE 106 translates the [pre-defined audio broadcast signals] PABS to a text string and parses out text relating to an anomaly.” Applicant asserts that one of ordinary skill in the art would understand that voice/speech recognition is the generic name for the tool that performs this function. In other words, it is implicit that speech/voice recognition performs the tasks of translating the audio signals into text information and then parsing (i.e., extracting) the anomaly information from the non-anomaly information. Other U.S. Patents support this understanding. *See* U.S. Patent No. 6,732,151, col. 3, lines 34-37 and U.S. Patent No. 6,570,964, col. 1, lines 24-30.

Finally, Applicant believes that the Examiner is using a decreased level of ordinary skill in the art to make this rejection. Applicant believes the level of ordinary skill in the art, and thus the understanding of what is disclosed in the present application as originally filed, is higher than that attributed by the Examiner. The Examiner, however, raises the level of ordinary skill in the art when he makes his obviousness rejection as will be addressed later on. Applicant asserts that the level of ordinary skill in the art used to analyze the present application should remain constant when analyzing for proper written description and for non-obviousness.

Rejection for Failing the Enablement Requirement

Again, as best Applicant can understand this rejection, it appears that the Examiner is asserting that once a voice signal is digitized, it no longer is a voice signal. Again, Applicant believes one of ordinary skill in the art would know that a voice signal can be in many different formats and still be a voice signal.

One definition of a signal is any medium or carrier that conveys information. *See In re Nuijten*, 500 F. 3d 1346, 1353 (Fed. Cir. 2007). Thus, compression waves through the air are voice signals when they are created by one person speaking and another person hearing. The hearing part of the process includes converting those compression waves into tiny electrical messages via the eardrum that are then transmitted to the brain for interpretation and understanding. Why is this different from an electronic device capturing the compression waves, say via a microphone, which in turn converts those signals into electrical waves or impulses for later processing by another device?

Applicant asserts that a voice signal remains a voice signal regardless of the format it is in. This conclusion is supported by col. 3, line 36 of U.S. Patent No. 6,732,151 that mentions the existence of a “digital voice pattern.”

Finally, Applicant notes that the Examiner is again using a lower level of one of ordinary skill in the art to formulate this rejection. That is, Applicant believes that one of ordinary skill in the art would know that a voice signal can be stored in a digital format and still be a voice signal. In making the prior art rejections, the Examiner increases the level of ordinary skill in an effort to make some references and combinations applicable against the pending claims.

Rejections Under Obviousness

The Examiner asserts that Logan et al. extract anomaly information from the recorded portions using voice recognition in paragraph [0078]. Applicant disagrees.

Paragraph [0078] describes inserting bookmarks into the recorded radio programs. Inserting a bookmark into a piece of data is not the same as extracting a portion of data from the whole. These bookmarks are then used to navigate through the content. See paragraph [0069].

The Examiner also cites to paragraph [0115] for teaching the extraction of anomaly information. However, the summary created by Logan et al. in paragraph [0115] is used to provide a visual display to the user presumably to aid the user in determining if he wants to listen to that particular piece of content. It is not provided to a GPS system as is presently claimed in claim 1.

However, if Logan et al. were modified to provide this summary data to the GPS system, it would presumably not be given to the user as an enticement to listen to the full piece of content. Therefore, the purpose of this feature of Logan et al.'s invention is destroyed and a reference cannot be modified to destroy its purpose.

On the other hand, if the summary is given to both the user and the GPS system, then the GPS system would receive additional data it does not need nor it can use. For example, a talk show that has a politician on as a guest would be summarized by Logan et al. and the content summary given to the GPS system. This data is unnecessary for the GPS, and therefore would not have been forwarded to the GPS by one of ordinary skill in the art, and might possible cause the GPS system to function improperly. As an example, Philadelphia's prior mayor is named Street. Giving the GPS system the name "Mayor

Street” might cause the GPS system to look for a street named Mayor or Mare and totally throw off the driver from his intended destination. It should also be noted that Logan et al. perform voice recognition analysis on digitally recorded material. *See* paragraphs [0012] and [0115]. Logan et al. therefore directly contradict the Examiner’s lack of enablement rejection because they teach that a digital signal may be a voice signal.

Assuming one of ordinary skill in the art could get Logan et al.’s summary data into Simmonds et al.’s GPS, the Examiner has still failed to address why Simmonds et al. would want this data when it sends and receives encoded messages that can be understood by the VCSI 30 in FIG. 2. *See generally*, paragraphs [0044] and [0058]. Nowhere in Simmonds et al. is voice recognition used to extract data from a radio broadcast message.

To get around this failing in Simmonds et al., the Examiner does two things.

First, the Examiner raises the level of ordinary skill in the art in that the combination being made is selective for the sole purpose of rejecting the present claims. That is, the Examiner assumes that one of ordinary skill in the art would be motivated to 1) change Simmonds et al.’s system from one that uses encoded information to one that uses voice recognition, 2) add this modified Simmonds et al. circuit to Logan et al.; and 3) then forward the summaries made by Logan et al. to this modified Simmonds et al. circuit all for the purpose of obtaining an updated navigation path.

Applicant asserts that this much effort in making modifications is beyond the level of ordinary skill in the art. Simmonds et al. achieves the same result of an updated navigation path via encoded signals without needing any changes by one of ordinary skill in the art. Applicant asserts that one of ordinary skill in the art, when combining Logan

et al. and Simmonds et al., would simply add the circuit of Simmonds et al. that accepts encoded signals without modification. Thus, the new combined system would still provide meaningful summaries to the user (as described in Logan et al.) and provide the user with updated navigation paths (as described in Simmonds et al.). One of ordinary skill in the art would reach this simpler solution given only the teachings of Logan et al. and Simmonds et al. and not Applicant's disclosure as a roadmap. To achieve the combination proposed by the Examiner would require the artisan to rely on things like Applicant's specification that are beyond the level of ordinary skill in the art.

Second, the Examiner continues to assert that the claim limitation of using voice recognition to extract anomaly information is a statement of intended use and "does not further distinguish the structure of the invention over the prior art." See Non-Final Rejection mailed on November 16, 2007; page 6. By this assertion, the Examiner is reading this limitation out of the claim. It is improper for the Examiner to ignore this limitation in an effort to make the combination of Logan et al. and Simmonds et al. "stick" to the present claims.

The Examiner has ignored limitations in the claims because they are allegedly statements of intended use and cites to MPEP 2114 for support in making this determination. This is improper. *See generally Pac-Tec, Inc. v. Amerace Corp.*, 903 F.3d 769, 801 (Fed. Cir. 1990) ("functional language, in cases like the present, cannot be disregarded") and *MIT v. Abacus Software*, 462 F.3d 1344, 1356 (Fed. Cir. 2006) ("The claim language here too does not merely describe a circuit, it adds further structure by describing the operation of the circuit").

The Examiner has failed to address the holdings of *Pac-Tec* or *MIT*. Instead of discussing these cases, the Examiner cites to other cases. These cases do not support the Examiner's contentions.

First, *In re Pearson*, 494 F. 2d 1399, 181 USPQ 641 (CCPA 1974) does not stand for the broad conclusion that statements of intended use cannot be used to patentably distinguish a claim over the prior art. The holding of *Pearson* supports a different conclusion. That is, a patent claim cannot be allowed over the prior art when the only difference is an inherent property that is expressly claimed in the claimed, but otherwise known in the prior art. Thus, in the case of *Pearson*, not only was the composition of the chemical to improve peanut yields known, so was the benefit of that compound to improve peanut yields. Indeed, the Court in *Pearson* went on to say in that opinion that a blanket rule such as "terms which recite the intended use or a property of a composition can never be used to distinguish a new from an old composition" should not be used. *Id* at 1403. Instead, the Court did say that "such terms[, in order for patentability to rest upon,] must define, indirectly at least, some characteristic not found in the old composition." *Id*. In the present application, Applicant has claimed limitations that are not found in *Simmonds et al.* and has therefore done that which was ruled upon by the *Pearson* court.

In re Yanush, 177 USPQ 705, 477 F.2d 958 (CCPA 1973) dealt with a difference in degree. The claims at suit were directed to a method for making footwear. The prior art had a process where vibrations were used to settle material in a mold. The claims "hammered" the material rather than "vibrated" it. The Court held that the difference between "vibrated" and "hammered" was insubstantial. Because the Court found no

difference between vibrating and hammering, the Court held that the statement of intended use of hammering did not distinguish the claims over the prior art. The Court did not assert that the term “hammering” was immaterial as alleged by the Examiner. Instead, the Court found “hammering” and “vibrating” to be patentably the same, and with all other limitations also being taught in the prior art, upheld the rejection of the claims. The present application is distinguishable from *Yanush* because Simmonds et al. do not use voice recognition to extract data from a radio broadcast. Thus, there is nothing analogous to this limitation in Simmonds et al.

In re Finsterwalder, 435 F.2d 1028, 168 USPQ 530 (CCPA 1971) dealt with the issue of inherency in a reference. The applicant’s claimed invention was to a platform used in constructing bridges. The claim at issue included the phrase “torsionally rigid.” The prior art had a similar structure to that claimed but did not describe its relevant parts as being torsionally rigid. The Court found that the prior art I-beams were shown to be connected in such a way, and to be composed of steel, such that they would be torsionally rigid. Therefore, the statement of intended use was inherent in the prior art and could not serve as a patentably distinguishable feature. This is not the same as the present case. Simmonds et al.’s voice recognition unit detects the driver’s voice and not the voice retrieved from a radio broadcast. There is simply no circuitry in Simmonds et al. to get the radio broadcast voice into Simmonds et al.’s voice recognition circuit that is only described for receiving voice commands from the driver.

In re Otto, 136 USPQ 458, 312 F.2d 937 (CCPA 1963) dealt with curlers for curling hair. The Applicant’s apparatus claim was:

1. As a new article of manufacture, a core member for hair curlers comprising a body of elastically resilient foam material, the hair being wound directly on said body and said body carrying a hair waving lotion in non-liquid form distributed in the pores of the material.

The prior art included other hair curling structures and structures for holding non-liquid chemicals that could be activated when wet. Again, the Court found that the applicant's statements of intended use (hair being wound and carrying a hair waving lotion in non-liquid form) were taught in the prior art. Therefore, there was nothing patentably distinguishable about these statements over the prior art.

In *Ex parte Masham*, 2 USPQ 2nd 1647 (BPAI 1987), the applicant's claim included a recitation of a mixing means being completely submerged in the developer material. The prior art had a similar mixing means but was only shown to be partially submerged in the developer material. In rejecting this claim, the Examiner reasoned that the prior art mixer was capable of being completely submerged in the developer material. The Board of Patent Appeals and Interferences upheld this finding. The holding of *Masham* is in line with the cases previously discussed. Again, there was an inherent capability of the prior art that met the claimed limitation of being completely submerged. A statement of intended use cannot be used to distinguish over the prior art that inherently performs, or is inherently capable of performing, the claimed statement of intended use. The present application differs from this situation because Simmonds et al. is not inherently capable of performing voice recognition on a radio broadcast signal.

In *re Danly*, 263 F.2d 844, 120 USPQ 528 (CCPA 1959) dealt with tie rods in power presses in which the tie rods must be with the correct tension. The claims at issue dealt with passing alternating current through the tie rods to heat them so that when the

alternating electric current was later removed from the tie rods, they would shrink and apply the correct tension. The prior art described heating the tie rods using an electric current that would then allow the tie rods to later cool when the current was removed and thereby apply the correct tension. The prior art was not specific as to whether the electric current was alternating or direct. All the structural elements of the pending claims were also found in the prior art. The court held that the teaching of applying electric current was broad enough to cover both alternating and direct currents. Thus, once again, the statement of intended use was found in the prior art and couldn't be used as a basis for finding patentability. As has been previously discussed, *Simmonds et al.* does not inherently teach some of the claimed features.

In *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 15 USPQ2d 1525 (Fed. Cir. 1990), Hewlett-Packard ("HP") sued Bausch & Lomb ("BL") for patent infringement. The patent covers plotters that move paper underneath a pen so graphs and charts can be drawn. BL asserted that the patent was obvious, and therefore invalid, in view of one piece of prior art. The HP patent used a wheel with grit on it to keep the paper from slipping as it is moved the paper. The BL prior art used a wheel with a knurled surface to move the paper.

BL apparently admitted that the knurled wheel of the prior art was a different structure than the gritted wheel of the HP patent. BL went on to argue that it would have been obvious to one of ordinary skill in the art to replace the knurled wheel of the prior art with a gritted wheel because a gritted wheel would have the same operational performance (i.e., reduced amount of slippage) as a knurled wheel.

This argument by BL was incorrect and therefore rejected by the Court. BL attempted to reduce the structure claim of HP's patent to the function performed and thereby disregard the structural limitations of the claims (i.e., a gritted wheel). This is what the Court meant when it stated, "[a]pparatus claims cover what a device is [a gritted wheel], not what a device does [anything that reduces slippage]."

In this application, Applicant has claimed a different structure by virtue of its different functions from that of Logan et al. and Simmonds et al. The Examiner has failed to address these differences.

For at least these reasons, the Examiner's rejections are improper and should be reversed.

(VIII) Claims Appendix

A copy of the claims is attached.

(IX) Evidence Appendix

No additional evidence is provided in an evidence appendix.

(X) Related Proceedings Appendix

No related proceedings are provided in a related proceedings appendix.

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Respectfully submitted,

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CLAIMS APPENDIX

1. A system for dynamic alternative geographic route plotting using global positional satellite data, said system comprising:

an audio tuner, said audio tuner tuning frequencies for reception of radio broadcast signals;

a selection recognition engine coupled to said audio tuner, said selection recognition engine monitoring said radio broadcast signals for pre-defined recording triggers and selectively recording portions of a radio broadcast signal, said selection recognition engine extracting anomaly information from said recorded portions using voice recognition; and

a global positional satellite device, said global positional satellite device receiving said anomaly information and generating at least one alternative route in response to said anomaly information.

2. The system of claim 1 further comprising an audio capture memory coupled to said selection recognition engine, said audio capture memory storing recorded portions of said radio broadcast signal.

3. The system of claim 2, wherein said audio capture memory comprises at least one of random access memory, flash memory, a hard drive, optical drive, and optical-magnetic drive.

4. The system of claim 1 wherein said radio broadcast signal comprises a primary band signal.

5. The system of claim 1 further comprising a display.